•

Sheet 1 of 19

Form PTO-1449 Modified

List of Patents and Publications

Cited by Applicant

(Use several sheets if necessary)

Applicant

Serial No. **08/319,411** 

U.S. Department of Commerce Patent and Trademark Office Applicant Nielsen et al.

Filing Date October 6, 1994

Group 1807
Not yet assigned

		TRANS	October 6, 1994	Not yet assigned	
1 .	UMENTS	(Including Author, Title,	Date, Pertinent Pages,	Etc.)	
IM	AA*	Affinity Chromatography Johnson and F.A. Middle,	- A practical Approach' , eds., IRL Press Ltd.,	", P.D.g. Dean, W.S.	
AM	AB	Agrawal, S. and Tang, "S Oligodeoxynucleotides for Letters 1990, 31(11), 15	Site-Specific Funcitonal		
AM	AC	Akashi, et <u>al</u> ., "New Asr 1990, 97, 108-146.		Adv. Polym. Sči.	
AM	AD	Aldrich Technical Bullet Diazomethane Generators"	in Number AL-180, "Diaz	ald®, MNNG and	
AM	AE	Anderson et al., "t-Buty Peptide Synthesis", J. A	lovicanhamil	and Their Use in	
AM	AF	Atherton et al., "The Fl Group", The Peptides 9,	llOreny] motherman	Amino Protecting	
AM	AG	Atherton et al., "A Physically Supported Gel Polymer for Low Pressure, Continuous Flow Solid Phase Reactions. Application to Solid Phase Peptide Synthesis", J. Chem. Soc. Chem. Commun 1981,			
AM	АН	Atherton et al., "Polyamide Supports for Polypeptide Synthesis", J. Am. Chem. Soc 1975, 50, 6584-6585.			
AM	AI	Atherton et al., "Peptide Synthesis. Part 2. Procedures for solid-phase Synthesis Using $N^{\alpha}$ -Fluorenylmethoxycarbonylamino-acids on Polyamide Supports. Synthesis of Substance P and of Acyl Carrier Protein 65-74 Decapeptide", J.C.S. Perkin 1981, I, 538-546.			
AM	AJ	Atherton, E. et al umbo	Atherton, E. et al., "The Polyamide Method of Solid Phase Peptide and Oligonucleotide Synthesis" Bioorg. Chem. 1979, 8, 351-370.		
AM	AK	Baker, B., "Decapitation	of		
AM	AL	phenanthroline:Cu(II)", J. Am. Chem. Soc. 1993, 115, 3378-3379.  Barany et al., "Solid-phase Peptide Synthesis: a Silver Anniversary Report", Int. J. Peptide Protein Res. 1987, 30, 705-			
AM	AM*	Barany and Merrified in "The Peptides" Vol. 2, Academic Press, N.Y., 1979, pp. 1-284.			
Am	AN	Barany et al., "A New Amino Protecting Group Removable by Reduction. Chemistry of the Dithiasuccinoyl (Dts) Function", J. Am. Chem. Soc. 1977, 99, 7363-7365.			
XAMINER		Muschel DATE CONSIDERED 9-30-96			

\* In view of the voluminous nature of these publications, and the likelihood that the Examiner may have a copy of these publications available to him or her, a copy has not been included herewith.

List of Patents and Publications
Cited by Applicant
(Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office

Docket No. ISIS-1158

Serial No. 08/319,411

Applicant Nielsen et al.

Filing Date October 6, 1994

OTHER DOCUM	ENTS	(Including Author, Title, Date, Pertinent Pages, Etc.)
AM	AO	Barton et al., "Solid-Phase Synthesis of Selectively Protected Peptides for Use as Building Units in the Solid-Phase Synthesis of Large Molecules", J. Am. Chem. Soc. 1973, 95, 4501-4506.
AM	AP	Bayer and Jung, "A New Support for Polypeptide Synthesis in Columns", Tetrahedron Lett <b>1970</b> , 51, 4503-4505.
AM	AQ	Beaucage and Caruthers, "Deoxynucleoside Phosphoramidites-A New Class of Key Intermediates for Deoxypolynucleotide Synthesis" Tetrahedron Lett., <b>1981</b> , 22, 1859-1862
AM	AR	Beran, Miloš et al., "Substituted $\omega$ -(4-Oxo-3,4-Dihydro-5-Pyrimidinyl) Alkanoic Acids, Their Derivatives and Analogues" Collect. Czech. Chem. Commun. <b>1983</b> , 48, 292-298
AM	AS	Berg et al., "Long-Chain Polystyrene-Grafted Polyethylene Film Matrix: A New Support for Solid-Phase Peptide Synthesis", J. Am. Chem. Soc 1989, 111, 8024-8026.
AM	АТ	Blackwell, T. K. et al., "Sequence-Specific DNA Binding by the c- Myc Protein," Science <b>1990</b> , 250, 1149-1151
AM	AU	Bodánzsky, "Synthesis of Peptides by Aminolysis of Nitrophenyl Esters", <i>Nature</i> <b>1955</b> , <i>175</i> , 685.
AM	AV	Bodanszky et al., "Active Esters and Resins in Peptide Synthesis", Chem. Ind. 1964, 1423-1424.
AM	AW*	Bodanzsky, "Principles of Peptide Synthesis", Springer Verlag, Berlin-New York 1984.
AM	AX	Brady et al., "Large-Scale Synthesis of a Cyclic Hexapeptide Analogue of Somatostatin," <i>J. Org. Chem.</i> <b>1987</b> , <i>52</i> , 764-769.
AM	AY	Brady et al., "Some Novel, Acid-Labile Amine Protecting Groups", J. Org. Chem. 1977, 42, 143-146.
AM	AZ	Buttrey et al., "Synthetic Analogues of Polynucleotides-XIII: The Resolution of DL- $\beta$ -(Thymin-1-YL)Alanine and Polymerisation of the $\beta$ -(Thymin-1-YL)Alanines", Tetrahedron 1975, 31, 73-75.
AM	BA	Carpino, "New Amino-Protecting Groups in Organic Synthesis", Acc. Chem. Res. 1973, 6, 191-198.
AM	вв	Carpino "The 9-Fluorenylmethoxycarbonyl Amino-Protecting Group" $J.$ Org. Chem., 1972, 37, 3404-3409

EXAMINER Aslin Muschel	DATE CONSIDERED 9-30-96

<sup>\*</sup> In view of the voluminous nature of these publications, and the likelihood that the Examiner may have a copy of these publications available to him or her, a copy has not been included herewith.

List of Patents and Publications Cited by Applicant (Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office

Docket No. ISIS-1158

Serial No. 08/319,411

Applicant Nielsen et al.

Filing Date October 6, 1994

			October 6, 1994	Wot yet assigned
OTHER DOC	JMENTS	(Including Author, Title,	Date, Pertinent Pages,	Etc.)
AM	вс	Carpino, "Oxidative Read Nitrogen from 1,1-Disubs Chem. Soc. <b>1957</b> , 79, 442	stituted-2-arenesulfonh	IV. Elimination of ydrazides <sup>1-4</sup> ", <i>J. Am</i> .
AM	BD	Carpino and Han, "The 9-Fluorenylmethoxycarbonyl Function, a New Base-Sensitive Amino-Protecting Group", J. Am. Chem. Soc. 1970, 92, 5748-5749.		
AM	BE	Carpino et al., "((9-Flu Acid Fluorides. Conveni Applicable to the FMOC/t Phase Syntheses", J. Am.	lent New Peptide Couplin Cert-Butvl Strategy for	ng Reagents Solution and Solid-
AM	BF	Caruthers, Marvin H., "G Its Uses" <i>Science</i> , <b>1985</b> ,	Gene Synthesis Machines:	
AM	BG	Chiang et al., "Antisens Adhesion Molecule 1 Expr J.Biol.Chem., 1991, 266:	ession by Two Distinct	bit Intercellular Mechanisms",
AM	вн	Corey et al., "Generation of a Hybrid Sequence-Specific Single-Stranded Deoxyribonuclease", Science, 1987, 238:1401-1403.		
AM	BI	Cullen, B., "The HIV-1 Tat Protein: An RNA Sequence-Specific Processivity Factor?" Cell 1990 63, 655-657		
AM	BJ	Daniels et al., "Membranes as Solid Supports for Peptide Synthesis", Tetrahedron Lett. 1989, 30, 4345-4348.		
Am	вк	Delgado et al., "The Uses and Properties of PEG-Linked Proteins", Critical Reviews in Therapeutic Drug Carrier Systems. 1992, 9, 249-304.		
NM	BL	Demidov, V. et al., "Sequence Selective Double Strand DNA Cleavage by Peptide Nucleic Acid (PNA) Targeting Using Nuclease S1" Nucl. Acids Res. 1993 21(19), 2103-2107		
AM	ВМ	Depto et al., "Regulated Expression of the Human Cytomegalovirus pp65 Gene: Octamer Sequence in the Promoter Is Required for Activation by Viral Gene Products," J. Virol. 1989, 63, 1232-1238.		
AM	BN	Dizio et al., "Progestin-Rhenium Complexes: Metal-Labeled Steroids with High Receptor Binding Affinity, Potential Receptor-Directed Agents for Diagnostic Imaging or Therapy", Bioconjugate Chem., 1991, 2, 353-366.		
AM	во	Doel et al., "An Approach Oligonucleotides (Nucleop 2285-2288.	h to the Synthesis of P peptides)", Tetrahedron	eptide Analogues of Letters <b>1969</b> , 27,
EXAMINER /	Irdin	Marshel	DATE CONSIDERED 9-3	0-96

List of Patents and Publications Cited by Applicant (Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office Docket No. ISIS-1158

Serial No. 08/319,411

Applicant Nielsen et al.

Filing Date October 6, 1994

1807 Group Not-yet-assigned

OTHER DOCUM	ients	(Including Author, Title, Date, Pertinent Pages, Etc.)
AM	BP	Doel et al., "The Synthesis of Peptides Containing Purine and Pyrimidine Derivatives of DL-Alanine", Tetrahedron 1974, 30, 2755-2759.
An	BQ	Dreyer and Dervan, "Sequence-specific cleavage of single-stranded DNA: Oligodeoxynucleotide-EDTA-Fe(II)", Proc.Natl.Acad.Sci. USA 82, 1985, 968-972.
AM	BR	Dubochet et al., "A New Preparation Method for Dark-Field Electron Microscopy of Biomacromolecules," <i>J. Ultrastruct. Res.</i> 1971, 35, 147-167.
AM	BS*	Eckstein, ed., <u>Oligonucleotides and Analogues, A Practical</u> <u>Approach,</u> IRL Press, 1991.
AM	вт	Egholm, M. "Peptide nucleic acids (PNA). Oligonucleotide analogues with an achiral peptide backbone", J. Am. Chem. Soc. 1992, 114, 1895-1897.
AM	BU	Egholm, M. et al., "Peptide Nucleic Acids Containing Adenine and Guanine Recognize Thymine and Cytosine in Complementary DNA Sequences" J. Chem. Soc. Chem. Commun. 1993 800-801
AM	BV	Egholm et al., "PNA Hybridizes to Complementary Oligonucleotides Obeying the Watson-Crick Hydrogen-Bonding Rules", Nature 365 <b>1993</b> 566-568
AM	BW	Egholm, et al., "Recognition of Guanine and Adenine in DNA by Cytosine and Thymine Containing Peptide Nucleic Acids (PNA) <sup>1,2</sup> " J. Am. Chem. Soc., <b>1992</b> , 114, 9677-9678.
AM	вх	Egholm et al., "Peptide Nucleic Acids (PNA): A Novel Approach to Sequence-Selective Recognition of Double-Stranded DNA" Innovation and Perspectives in Solid Phase Synthesisi Collected Papers (Epton, Ed. by Intercept 1td, Andover, England) 1992, 325-328.
PM	ву	Eichler et al., "Application of Cellulose Paper as Support Material in Simultaneous Solid Phase Peptide Synthesis", Collect. Czech. Chem. Commun. 1989, 54, 1746-1752.
am	BZ	Fissekis, John D. and Sweet, Frederick, "Synthesis of 5- Carboxymethyluridine. A Nucleoside from Transfer Ribonucleic Acid" Biochemistry 1970, 9, 3136-3142.
an	CA	Fodor, Stephen P.A. et al., "Light-Directed, Spatially Addressable Parallel Chemical Synthesis" Science, 1991, 251, 767-773.
AM	CB 1	Franza, Jr., B. R. et al., "Characterization of cellular proteins recognizing the HIV enhancer using a microscale DNA-affinity precipitation assay," <i>Nature</i> <b>1987</b> , <i>330</i> , 391-395
EXAMINER	D:	m. 1 DATE CONSIDERED 9-30-96

\* In view of the voluminous nature of these publications, and the likelihood that the Examiner may have a copy of these publications available to him or her, a copy has not been included herewith.

Sheet 5 of 19

### Form PTO-1449 Modified

List of Patents and Publications
Cited by Applicant
(Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office Docket No. ISIS-1158

Serial No. 08/319,411

Applicant Nielsen et al.

Filing Date October 6, 1994

Group 1807 Not yet assigned

	DMENTS	(Including Author, Title, Date, Pertinent Pages, Etc.)		
AM	cc	Fridkin et al., "A Synthesis of Cyclic Peptides Utilizing High Molecular Weight Carriers", J. Am. Chem. Soc 1965, 87, 4646-4648.		
AM	CD	Froehler, et al., "Oligodeoxynucleotides Containing C-5 Propyne Analogs of 2'-Deoxyuridine and 2'-Deoxycytidine," Tetrahedron Letters 1992, 33,5307-5310.		
AM	CE*	Gait, ed., Oligonucleotide Synthesis, A Practical Approach, IRL Press, 1984.		
AM	CF	Gao, et al., "6-0-(Pentafluorophenyl)-2'-Deoxyguanosine: A Versatile Synthon for Nucleoside and Oligonucleotide Synthesis", The Journal of Organic Chemistry 1992, 57:6954-6959.		
AM	CG	Gewirtz, "Therapeutic Application of Antisense DNA in the Treatment of Human Leukemia", published in Antisense Strategies Vol. 660 178-187 (October 28, 1992) - Annals of the New York Academy of Sciences (Baserga & Denhardt Eds.)		
AM	СН	Geysen et al., "Use of Peptide Synthesis to Probe Viral Antigens for Epitopes to a Resolution of a Single Amino Acid", Proc. Natl. Acad. Sci. USA 1984, 81: 3998-4002.		
AM	CI	Gilham, P. T., "The Covalent Binding of Nucleotides, Polynucleotides, and Nucleic Acids to Cellulose" in Methods in Enzymology, Chapter 10, L. Grossmann and K. Moldave, eds. 1971, 21, part D, 191-197, Academic Press, N.Y. and London.		
AM	CJ	Gilmore, T. D. and Temin, H. M., "Different Localization of the Product of the v-rel Oncogene in Chicken Fibroplasts and Spleen Cells Correlates with Transformation by REV-T", Cell 1986 44 791-800		
AM	CK	Goodman and Levine, "Peptide Synthesis via Active Esters. IV. Racemization and Ring-Opening Reactions of Optically Active Oxazolones", J. Am. Chem. Soc. 1964, 86, 2918-2922.		
AM	CL	Gorman, Jeffrey, "An Apparatus for Simultaneous Manual Solid-Phase Synthesis of Multiple Peptide Analogs", Anal. Biochem 1984 136 397-406		
AM	CM*	Greene and Wuts, Protective Groups in Organic Synthesis, 2d ed. John Wiley & Sons, New York, 1991.		
AM	CN	Greenfield et al., "Thiol-Containing Cross-Linking, Bioconjugate Chem., 1990, 1, 400-410.		
AM	CO	Hahn et al., "Design and Synthesis of a Peptide Having Chymotrypsin-Like Esterase Activity", Science 1990, 248, 1544-1547.		
EXAMINER  In view of the vol	Adr	Mushy DATE CONSIDERED 9-30-96		

\* In view of the voluminous nature of these publications, and the likelihood that the Examiner may have a copy of these publications available to him or her, a copy has not been included herewith.

List of Patents and Publications Cited by Applicant (Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office

Docket No. ISIS-1158

Serial No. 08/319,411

Applicant Nielsen et al.

Filing Date October 6, 1994

OTHER DOCUMENTS	(Including Author, Title,	Date, Pertinent Pages,	Etc.)
AM CP	Hahn et al., "Molecular III virus associated wit	cloning and charactering h AIDS," <i>Nature</i> <b>1984</b> ,	zation of the HTLV- 312, 166-169.
NM co	Haas, W.L. et al., "Adama Preparation of 1-Adamant 88, 1988-1992	ntyloxycarbonyl, a New yl Chloroformate" <i>J. Ar</i>	Blocking Group. m. Chem. Soc., 1966,
AM CR	Hanvey et al., "Antisens Nucleic Acids", Science	e and Antigene Propert: <b>1992</b> , <i>258</i> , 1481-1485.	ies of Peptide
YW cs	Haralambidis et al., "Prosuitable for non-radioac incorporation into synthe Acids Research, 15, 1987	tive label attachment a etic ologodeoxvribonucl	and their
AM CT	Harris <i>et al.</i> , "New Strat <b>1991</b> , <i>113</i> , 4328-4329.	tegy for the Synthesis'	', J. Am. Chem. Soc.,
AM cu	Heimer, J.P. et al., "Syn aminoethyl)glycine and Tl Rat" <i>Int. J. Pept. Prote</i>	neir Gastrointestinal A	Absorption in the
AM CV	Holm and Meldal, "Multipl of the 20th European Pep eds., Walter de Gruyter 8	tide Symposium". G. Jun	og and E. Baver
AM cw.	Houghten, "General Method for the Rapid Solid-Phase Synthesis of Large Numbers of Peptides: Specificity of Antigen-Antibody Interaction at the Level of Individual Amino Acids", Proc. Natl. Acad. Sci. USA 1985, 82, 5131-5135.		
My cx	Huang et al., "Acyclic Nucleic Acid Analogues: Synthesis and Oligomerization of $\gamma$ ,4-Diamino-2-oxo-1(2H)-pyrimidinepentanoic Acid and $\sigma$ 4-Diamino-2-oxo-1(2H)-pyrimidinehexanoic Acid", $J$ . Org. Chem. 1991, 56, 6007-6018.		
NM CY	Hyrup et al., "Modificati Nucleic Acids (PNA). PNA Aminoethyl- $\beta$ -alanine or 3 Chem. Commun. 1993, 518-5	with Extended Backbon -Aminopropylglycine Un	es Consisting of 2-
Am cz	Inaki et al., "Functionality and Applicability of Synthetic Nucleic Acid Analogs", in Current Topics in Polymer Science 1987, Ottenbrite, Utracki, Inoue, Eds. New York: Macmillan Pub. Co., 1, 80-100.		
AM DA	Inaki, Y., "Synthetic Nuc 1992, 17, 515-570.	leic Acid Analogs", Pr	og. Polym. Sci.
AM DB	Jenkins, Y. and Barton, " Switch: Tethering of an Complex of Ruthenium (II)	Oligonucleotide to a D	ipyridophonic
EXAMINER Audin	Marchel	DATE CONSIDERED 9-3	30-96

List of Patents and Publications Cited by Applicant (Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office Docket No. ISIS-1158

Serial No. 08/319,411

Applicant Nielsen et al.

Filing Date October 6, 1994

				-Not yet ussigned
OTHER D	OCUMENTS	(Including Author, Title,	Date, Pertinent Pages	, Etc.)
AM	DC	Jeppesen, C. et al., "A s Between E.coli RNA Polyme Promoter", Nucleic Acids		
IM	DD	Jones, Jr., "Hydrogenatic Resin During Solid Phase -2853-2856:	on of Protocted tour	
AM	DE	Kent and Merrifield, "Pre Butyloxycarbonylaminoacyl F-g-styrene) Resin, an In Phase Peptide Synthesis",	-4-(Oxymethyl) phenyl	acetamidomethyl-(Kel
AM	DF	König et al., "Autoregula the Major Target of Repre	tion of for	
AM	DG	König and Geiger, "Racemi 1973, 103, 2024-2033.	sierung bei Peptidsyn	thesen", Chem. Ber.
AM	DH	König and Geiger, "Eine NAktivierung Der Carboxylg: Hydroxy-4-oxo-3.4-dihydro-103, 2034-2040.		
AM	DI	de Koning et al., "Unconve Derivatives of 6-(1-pyrim acid.", Recueil 1971, 90,	[(1]  TV  )=================================	nalogues V. nyl)-2-aminocaproic
AM	DJ	Kovacs, J. et al., "Glutamic and Aspartic Anhydrides. Rearrangement of N-Carboxyglutamic 1,5-Anhydride to the Leuchs' Anhydride and Conversion of the Latter to Pyroglutamic Acid" J. Am. Chem. Soc. 1963 85: 1839-1844.		
AM	DK	Krchňák et al., "Continuous-Flow Solid-Phase Peptide Synthesis", Tetrahedron Lett 1987, 28, 4469-4472.		
AM	ĎΓ	Krchňák et al., "Multiple Continuous-Flow Solid Phase Peptide Synthesis", Int. J. Peptide Protein Res. 1989, 33, 209-213.		
Am	DM	Kupryszewski, "O Estrach Chlorofenylowych Aminokwasow. II. Synteza Peptydow Poprzez Aminolize Aktywnych Estrow 2,4,6- Trojchlorofenylowych N-Chronionych Aminokwasow", Rocz. Chem. 1961, 35, 595-600.		
AM	DΝ̈́	Lal et al., "Diphenylphosphoryl Azide A Novel Reagent for the Stereospecific Synthesis of Azides from Alcohols," <i>Tetrahedron Letters</i> 1977, 23, 1977-1980.		
EXAMINER	Adi	Marshel	DATE CONSIDERED 9-3	30-96

Sheet 8 of 19

# Form PTO-1449 Modified

List of Patents and Publications Cited by Applicant (Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office Docket No. ISIS-1158

Serial No. 08/319,411

Applicant Nielsen et al.

Filing Date October 6, 1994

	,	TOL YAL asorgned		
OTHER DO	CUMENTS	(Including Author, Title, Date, Pertinent Pages, Etc.)		
AM	DO	Lebl, Michal and Eichler, Jutta, "Simulation of Continuous Solid Phase Synthesis: Synthesis of Methionine Enkephalin and its Analogs" <i>Peptide Research</i> , <b>1989</b> , <i>2</i> , 297-300		
AM	DP,	Letsinger, et al., "Synthesis of Thymidine Oligonucleotides by Phosphite Triester Intermediates" J. Am. Chem. Soc. 1976, 98, 3655-3661		
AM	DQ	Li et al., "The Synthesis of a Protein Possessing Growth-Promoting and Lactogenic Activities", J. Am. Chem. Soc. 1970, 92, 7608-7609.		
AM	DR	Lu et al., "Synthesis of Polyesters Containing Nucleic Acid Base Derivatives as Pending Side Chains," J. Polym. Sci. 1986, Part A: Polymer Chemistry 24: 525-536.		
AM	DS	Mack, D. P. et al., "Design and Chemical Synthesis of a Sequence- Specific DNA-Cleaving Protein" J. of Am. Chem. Society 1988 110		
AM	DT*	Manoharan, Antisense Research and Applications, Crooke and Lebleu, eds., CRC Press, Boca Raton, 1993.		
AM	DÜ	McCurdy, et al., "Deoxyoligonucleotides with Inverted Polarity: Synthesis and Use in Triple-Helix Formation," Nucleosides and Nucleotides 1991, 10, 287-290.		
AM	DV	McKay and Albertson, "New Amine-Masking Groups for Peptide Synthesis", J. Am. Chem. Soc. 1957, 79, 4686-4690 .		
AM	DW	Meier et al., "Peptide Nucleic Acids (PNAs)-Unusual Properties of Nonionic Oligonucleotide Analogues", Angew. Chem. Int. Ed. Engl. 1992, 31, 1008-1010.		
AM	DX	Merrifield, "Solid Phase Peptide Synthesis. I. The Synthesis of a Tetrapeptide", J. Am. Chem. Soc. 1963, 85, 2149-2154.		
AM	DY	Merrifield, "Solid Phase Synthesis", Science 1986, 232, 341-347.		
AM	DZ	Meyer, et al., "Efficient, Specific Cross-Linking and Cleavage of DNA by Stable, Synthetic Complementary Oligodeoxynucleotides", J. Am. Chem. Soc. 111; 1989 8517-8519.		
AM	EA	Mitchell and Merrifield, "Occurrence of N-Alkylation During the Acidolytic Cleavage of Urethane Protecting Groups 1a,b", J. Org. Chem. 1976, 41, 2015-2019.		
AM	EB	Mitchell et al., "Preparation of Aminomethyl-Polystyrene Resin by Direct Amidomethylation", Tetrahedron Lett. 1976, 42, 3795-3798.		
XAMINER	Ardi	n Marshel DATE CONSIDERED 9-30-96		

<sup>\*</sup> In view of the voluminous nature of these publications, and the likelihood that the Examiner may have a copy of these publications available to him or her, a copy has not been included herewith.

			7	Sheet 9 of 1	
	Form PTO-1449 Modified  List of Patents and Publications		Docket No. ISIS-1158	Serial No. 08/319,411	
Cited by Applicant (Use several sheets if necessary)		Applicant Nielsen et al.			
Patent and	U.S. Department of Commerce Patent and Trademark Office		Filing Date October 6, 1994	Group 1807	
OTHER DOCT	MENTS	(Including Author, Title,		Not yet assigned	
AM	EC	Mizutaniy Takaharu and T Porous Glass, a Better S Chromatogr, 1986, 356, 2	Cachibana, Yoshio, "Olic		
AM	ED	Mutter and Baver "Panid	Mutter and Bayer, "Rapid Procedure for Liquid-Phase Peptide Synthesis: The Crystallization Method"		
AM	EE	Nagae et al., "Functiona of Nucleic Acid Base Con Chromatography," J. Poly 27, 2593-2609.	Nagae et al., "Functional Monomers and Polymers. CLIV. Application of Nucleic Acid Base Containing Polymers to High Performance Liquid Chromatography." J. Polym. Sci. Part & Polymers and Polymers and Polymers.		
AM	EF	Nefkens and Tesser, "A Novel Activated Ester in Peptide Synthesis"  J. Am. Chem. Soc. 1961, 83, 1263.			
AM	EG	Nielsen, P. E. et al., "Photochemical Cleavage or DNA by Nitrobenzamides" Biochem. 1988, 27, 6338-6343			
AM	EH	Nielsen, et al., "Sequence-Selective Recognition of DNA by Strand Displacement with a Thymine-Substituted Polyamide," Science, 254			
AM	EI	Nisen, P. D. et al., "Enhanced Expression of the N-myc Gene in Wilms' Tumors," Cancer Research 1986, 46, 6217-6222			
AM	EJ	Nollet et al., "Unconventional Nucleotide Analogues-III, 4-(N <sub>1</sub> -Pyrimidyl)-2-Aminobutyric Acids", Tetrahedron 1968, 25, 5989-5994.			
AM	EK	Nollet et al., "Unconventional Nucleotide Analogues-I, N <sub>9</sub> -Purinyl α-Amino Acids", Tetrahedron 1969, 25, 5971-5981.			
AM	EL	Nollet et al., "Unconventional Nucleotide Analogues-II, Synthesis of the Adenyl Analogue of Willardiine", Tetrahedron 1969, 25, 5983-5987.			
AM	EM	Nollet et al., "Michael Addition of 4-O-Ethyluracil. A Method for Specific N <sub>1</sub> -Alkylation of Hydroxpyrimidines", Tetrahedron Letters 1969, 53, 4605-4606.			
EXAMINER A	zdn	Mushel	DATE CONSIDERED 9-30	-96	

List of Patents and Publications
Cited by Applicant
(Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office Docket No. ISIS-1158

Serial No. 08/319,411

Applicant Nielsen et al.

Filing Date October 6, 1994

			October 6, 1994	Not yet assigned
OTHER DOCUM	MENTS	(Including Author, Title,	Date, Pertinent Pages	, Etc.)
AM	EN*	Nucleic Acid Hybridizations. J. Higgins, IRL Press	on - A Practical Appro Ltd., Oxford 1987.	ach, B. D. Harnes and
AM	EO*	Odian, "Principles of Po	lymerization", McGraw-	Hill, N.Y. 1970.
Am	EP	Omura, K. and Swern, "Ox: Sulfoxide. A Preparative Tetrahedron 1978, 34, 16	e, Steric and Mechanis	"Activated" Dimethyl tic Study",
AM	EQ	Ono, A. et al., "Triplex 2'-O-Methylpseudoisocytic J. Am. Chem. Soc. 1991,	dine in Substitution f	leotides Containing or 2'-Deoycytidine"
Am	ER	Ono, Akira et al., "Tripl Containing 2'-O-Methylpse Neutral pH" J. Org. Chem	eudoisocytidine with a	igonucleotide DNA Duplex at
AM	ES	Ouchi, T. et al., "Synthe poly(ethylene glycol)s li urea bond", Drug Design a	inked to 5-fluorouraci	l via a urethane or
Am	ET	Parr and Grohmann, "Solid Matrix having Organic Gro Internal. Ed. <b>1972</b> , 11, 3	oups on the Surface", .	sis on an Inorganic Angew. Chem.
AM	EU	Petty et al., "Cytochrome Metal Complexes as Synthe Site of Cytochrome Oxidas	etic Models for the Fe	/Cu Binuclear Active
AM	EV	Pietta and Marshall, "Ami Phase Peptide Synthesis"	de Protection and Amic Chemical Communication	de Supports in Solid- ns, <b>1970</b> , 650-651
DM	EW	Pitha et al., "Inhibition Poly(vinyluracil) and Pol USA 1973, 70, 1204-1208.	n of Murine Leukemia V Ly(vinyladenine)", <i>Pro</i>	irus Replication by c. Natl Acad. Sci.
AM	EX	Pitha, J., "Physiological Polynucleotides", <i>Adv. Po</i>	Activities of Synthe	thic Analogs of -16.
pm	EY	Pless et al., "Über die G Verschiedenen Neuen, Akti phenylestern, insbesonder Acta <b>1963</b> , 46, 1609-1625.	.vierten, N-geschützter e 2,4,5-Trichlorpheny:	n α-Aminosäure-
AM	EZ	Pollack, S. J. et al., "S Antibody" <i>Science</i> , <b>1986</b> ,	Selective Chemical Cata 234, 1570-1573	alysis by an
EXAMINER	Az	li Marshel	DATE CONSIDERED 9	30-96

<sup>\*</sup> In view of the voluminous nature of these publications, and the likelihood that the Examiner may have a copy of these publications available to him or her, a copy has not been included herewith.

List of Patents and Publications Cited by Applicant (Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office Docket No. ISIS-1158

Serial No. 08/319,411

Applicant Nielsen et al.

Filing Date October 6, 1994

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)  FA Ravasio, N. and Rossi, M., "Selective Hydrogenations Promoted by Copper Catalysts 1. Chemoselectivity Pages			
FA Ravasio, N. and Rossi, M., "Selective Hydrogenations Busy 1.			
Copper Catalysts 1. Chemoselectivity, Regioselectivity, and Stereoselectivity in the Hydrogenation of 3-Substituted Steroids J. Org. Chem. 1991, 56, 4329-4333			
FB Rich and Gurwara, "Preparation of a New o-Nitrobenzyl Resin for Solid-Phase Synthesis of tert-Butyloxycarbonyl-Protected Peptide Acids", J. Am. Chem. Soc. 1975, 97, 1575-1579.			
FC Rivaille et al., "Synthesis of LH-RH Using a New Phenolic Polyme as Solid Support and "BOP" Reagent for Fragment Coupling", Tetrahedron 1980, 36, 3413-3419.	r		
Ruth, J., "Oligodeoxynucleotides with Reporter Groups Attached t the Base", in Oligonucleotides and Analogues: A Practical Approa	ch		
	Sági, et al., "Base-Modified Oligodeoxynucleotides. I. Effect of 5-Alkyl, 5-(1-Alkenyl) and 5-(1-Alkynyl) Substitution of teh Pyrimidines on Duplex Stability and Budwenhabining		
FF Sakakibara, et al., "A New Method for Releasing Oxytocin form Fully-Protected Nona-peptides Using Anhydrous Hydrogen Fluoride" Bull. Chem. Soc. Jpn. 1965, 38, 1412-1413.	Sakakibara, et al., "A New Method for Releasing Oxytocin form Fully-Protected Nona-peptides Using Aphydrous Volumes and Aphydrous Aphy		
	Schlatter, James M. and Mazur, Robert H., "Hydrogenationin Solid Phase Peptide Synthesis. T. Removal of Product for		
FH Scott et al., "The Use of Resin Coated Glass Beads in the Form of Packed Bed for the Solid Phase Synthesis of Peptides", J. Chromatogr. Sci 1971, 9, 577-591.	a		
FI Sheehan, "A New Method of Forming Peptide Bonds", J. Am. Chem. Sci. 1955, 77, 1067-1068.	z.		
Shemyakin et al., "Synthesis of Peptides in Solution on a Polymer Support I. Synthesis of Clycylglycyl-L-Leucylglycine", Tetrahedr Lett 1965, 27, 2323-2327	i.c		
FK Shokat et al., "A New Strategy for the Generation of Catalytic Antibodies", Nature 1989, 338, 269-271.	$\dashv$		
EXAMINER Arth Muschal DATE CONSIDERED 9-30-96			

#### Sheet 12 of 19 Form PTO-1449 Modified Docket No. Serial No. List of Patents and Publications ISIS-1158 08/319,411 Cited by Applicant (Use several sheets if necessary) Applicant Nielsen et al. U.S. Department of Commerce Patent and Trademark Office Filing Date 1807 Group October 6, 1994 Not yet assigned OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Sieber and Iselin, "77. Selektive Acidolytische Spaltung von FLAralkyloxycarbonyl-Aminoschutzgruppen", Helv. Chem. Acta. 1968, 51, FMSigman, "Chemical Nucleases", Biochem. 1990, 29:9097-9105. Simon et al., "Peptoids: A modular approach to drug discovery", FN Proc. Natl. Acad. Sci. USA 1992, 89, 9367-9371. Sluka, J.P. et al., "Reagents and methods for the solid-phase FO synthesis of protein-EDTA for use in affinity cleaving", J. Am. Chem. Soc. 1990, 112, 6369-6374. Smith-Jones, P. et al., "Antibody Labeling with Copper-67 Using the FΡ Bifunctional Macrocyle 4-[(1,4,8,11-Tetraazacyclotetradec-1yl)methyl]benzoic Acid", Bioconjugate Chemistry 1991, 2, 415-421. Solid-Phase Biochemistry - Analytical and Synthetic Aspects", W.H. FO\* Scouten, ed., John Wiley & Sons, N.Y., 1983. Sproat, B.S. et al., "Highly Efficient Chemical Synthesis of 2'-O-FR methylioligoribunocleotides and Tetrabiotinylated Derivatives; Novel Probes That are Resistant to Degradation by RNA or DNA Specific Nucleases", Nucleic Acids Research 1989, 17(9), 3373-3386. Spalholtz et al., "Bovine Papillomavirus Transcriptional FS Regulation: Localization of the E2-Responsive Elements of the Long

Control Region, " J. Virol. 1987, 61, 2128-2137. Stenberg et al., "Promoter-Specific trans Activation and Repression FTby Human Cytomegalovirus Immediate-Early Proteins Invovles Common and Unique Protein Domains, " J. Virol. 1990, 64, 1556-1565. FU\* Stewart and Young, "Solid Phase Peptide Synthesis", 2nd Ed., Pierce Chemical Company, Ill., 1984. Studer et al., "One Step Synthesis of Mono-N-substituted FV Azamacrocycles with a Carboxylic Group in the Side-Chain and their Complexes with Cu2+ and Ni2+", Helvetica Chimica Acta 69, 1986 2081-Takemoto et al., "Synthetic Nucleic Acid Analogs. Preparation and FW Interactions", Adv. Polym. Sci. 1981, 1-51. Tam, James P., "A Gradative Deprotection Strategy for the Solid-FΧ Phase Synthesis of Peptide Amides Using p-(Acyloxy)benzhydrylamine

EXAMINER zem Marshel

DATE CONSIDERED 9-30-96

Resin and the  $S_N$ 2Deprotection Method", J. Org. Chem. 1985 50 5291-

<sup>\*</sup> In view of the voluminous nature of these publications, and the likelihood that the Examiner may have a copy of these publications available to him or her, a copy has not been included herewith.

List of Patents and Publications
Cited by Applicant
(Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office Docket No. ISIS-1158

Serial No. 08/319,411

Applicant Nielsen et al.

Filing Date October 6, 1994

			October 6, 1994	Nob yet assigned		
	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)					
1M	FY	Tam et al., "Multi-Detac Fragment Synthesis", Tet	hable Resin Supports for rahedron Lett. <b>1979</b> , 52	or Solid Phase 2, 4935-4938.		
AM	FZ	Tam et al., "S <sub>N</sub> 2 Deproted Concentration of HF in D	ction of Synthetic Pept	ides with a Low		
AM	in Peptide Synthesis", J. Am. Chem. Soc. 1983, 105, 6442-6455.  GA  Tam et al., "Improved Synthesis of 4-(Boc-minoacyloxymethyl)-phenylacetic Acids for Use in Solid Phase Peptide Synthesis", Communications 1979, 955-957.					
AM	GB	Tam et al., "Mechanisms in Synthetic Peptides by Trifluoroacetic Acid-Dime 108, 5242-5251.				
AM	GC.	Tam, "Design and Synthes: Solid-Phase Peptide Synthes: 6127	is of Multidetachable R hesis" <i>J. Am. Chem. So</i>	esin Supports for c. <b>1980</b> , <i>102</i> , 6117-		
AM	GD	Telser, J. et al., "DNA (Covalently Attached Derival bipyridine) ruthenium (II) Thermodynamic and Optical Chem. Soc. 1989, 111, 722	Synthesis and Charac			
AM	GE	Tibanyenda et al., "The et the duplex stability of dark-C-T-T-G-A-T-A-T-T-A-A-T	1     -   -   -   -   -   -   -   -   -	7 7 m m ~\ 1/~ - /		
AM	GF	Tramontano <i>et al.</i> , "Catal 1570.				
AM	GG	Trapane, T.L. et al., "A Single-Stranded Nucleic A Sequence", Abstracts Conf Applications, Cancun, Mex	erence on Nucleic Acids	control of all		
AM	GH	Trapane, T. et al., "Form triplex with purine oligo linkages" Abstract of J. "Seventh Conversation in	mers having non-ionic m	ethylphosphonate		
"Seventh Conversation in Biomolecular Stereodynamics" a229  GI Trapane, T.L. and Ts'o, P.O.P., "Triplex Formation of Adenine and Thymine Deoxyoligonucleotides and Their Nonionic Methylphosphonate Analogs" Biophys. J., 1992, 61, Abstract 2437						
EXAMINER	Ardin	Muscles	DATE CONSIDERED 9-	30-96		

Form PTO-1449 Modified	Form	PTO-	1449	Modifi	ьa
------------------------	------	------	------	--------	----

List of Patents and Publications Cited by Applicant (Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office

Docket	No.
ISIS-11	.58

Serial No. 08/319,411

Applicant Nielsen et al.

Filing Date October 6, 1994

				Not yet assigned
OTHER DO	CUMENTS	(Including Author, Title,	Date, Pertinent Pages,	Etc.)
AM	ĠΏ	Tregear, "Graft Copolyme Synthesis", <i>Chemistry ar</i> ed., Ann Arbor Sci. Publ	10 Blology of Pentidos:	1070 7 14-1-1
AM	GK	Uhlmann et al., "Antisen Principle", Chemical Rev	se Oligopucleotides	Nov. Electronic i
AM	GL	van Rietschoten, "Simult Different Insoluble Supp Wiley and Sons, New York	aneous Synthesis of Two	Demail 3
SM	GM	Vasseur et al., "Oligonu Methylhydroxylamine-Link into Antisense Sequences	ed Nucleogide Dimor and	The Tanana
AM	GN	Veber, Daniel F. et al., Protecting Group for Pep 42(20), 3286-3288.	"Isonicotinylovycarhom	
AM	GO	Vickers, T. et al., "Inh oligonucleotides targeted Research 1991, 19, 3359-	u to the TAR element "	expression by Nucleic Acids
AM	GP	Wagner, R., "Antisense Go Containing C-5 Propyne Py	ene Inhibition by Oligo yrimidines", Science 19	nucleotides 93, 260, 1510-1513
AM	GQ	Wakelin, L. P.G. et al., of Amsacrine-4-Carboxamic Intercalating Agents which J. Med. Chem 1990, 33, 20	"Kinetic and Equilibri des: A Class of Asymme	um Binding Studies
AM	GR	Weller et al., "Molecular Oligonucleotide Analogues	Modeling of Acyclic P	olyamide 6000-6006
AM	GS	Wieland et al., "Symmetri Economical Peptide Synthe Ed. Engl. 1971, 10, 336.	cal Boc-Amino Acid Anh	rdmide = E
AM	GT	Yajima et al., "Trifluoro Reagent in Peptide Chemis 107-108.	omethanesulphonic Acid, stry", J. Chem. Soc., Cl	as a Deprotecting hem. Comm. 1974,
AM	GU	Zervas et al., "New Metho Tritylsulfenyl and o-Nitr Groups", J. Am. Chem. Soc	Ophenvisulfenvi Groupe	s. I. as N-Protecting
AM	GV	Zhang, Z. and McCormick," Release of Amines by Rena Delivery of Bioactive Com	Uptake of N-(4'-pyridox	
EXAMINER	Adi	Marsh	DATE CONSIDERED 9-3	

Sheet 15 of 19

## Form PTO-1449 Modified

List of Patents and Publications Cited by Applicant (Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office Docket No. Serial No. 08/319,411

Applicant Nielsen et al.

Filing Date October 6, 1994

Group (807
Not yet assigned

# U. S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass
AM	GW	5,134,066	7/28/92	Rogers et al.	435	91
AM.	GX	5,142,047	8/25/-92	Summerton et al.	544	118
NM	GY	5,324,483	6/28/94	Cody et al.	422	131
	GZ*	07/702,374	10/24/91	- Manoharan et al.		
	HA*	<del>-07/943,516</del>	-9/11/92	-Manoharan-et-al.		
	HB*	08/088,658	7/2/93	-Ecker et al.		
-	HC*	08/116,801	<del>-9/3/93</del>	-Manoharan-et-al.		
	HD*	<del>-08/117,363</del>	9/3/93	-Gook-et-al.		
	HB*	08/275,951	7/15/94	Egholm et al		

# FOREIGN PATENT DOCUMENTS

Examiner Initial			Document No.	Date	Country	Transla	
AM		<del> </del>	<del> </del>			YES	NO NO
100		HF	WO 86/05518	9/25/86	PCT/US86/00544	xx	
am		HG	WO 86/05519	9/25/86	PCT/US86/00545		<del> </del>
- AM		нн	WO 90/02749	3/22/90	PCT/DK89/00201	XX	<del> </del>
AM	v	НJ	WO 92/20702	11/26/92		XX	<del> </del>
AM	•	нк			PCT/EP92/01219	XX	
		III	WO 92/20703	11/26/92	PCT/EP92/01220	xx	
AM		HN	WO 93/05180	3/18/93	PCT/US92/07246	xx	<del>                                     </del>
AM		но	WO 93/07883	4/29/93	PCT/US92/09196		<del>                                     </del>
AM	4	HP	WO 93/12129			XX	<u> </u>
AM	$\neg$			6/24/93	PCT/US92/10921	xx	
	{	НQ	WO 93/18052	9/16/93	PCT/US93/02059	xx	
AM	4	HR	WO 94/06815	3/31/94	PCT/US93/08367	xx	
EXAMINER	A	edm	Marshal	DATE COM	NSIDERED 9-30-96		I

<sup>\*</sup> In view of the likelihood that the Examiner has access to these filed applications available to him or her, copies have not been included herewith.

List of Patents and Publications
Cited by Applicant
(Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office Docket No. ISIS-1158

Serial No. 08/319,411

Applicant Nielson et al.

Filing Date October 6, 1994

		yet abbrighed		
OTHER DOCT	MENTS	(Including Author, Title, Date, Pertinent Pages, Etc.)		
AM	HS	Almarsson, et al., "Molecular Mechanics Calculations of the Structures of Polyamide Nucleic Acid DNA Duplexes and Triple Helical Hybrids", Proc. Natl. Acad. Sci. USA, 1993, 90(16):7518-7522		
AM	HT/	Almarsson, et al., "Peptide Nucleic Acid (PNA) Conformation and Polymorphism in PNA-DNA and PNA-RNA Hybrids", Proc. Natl. Acad. Sci. USA, 1993, 90(20):9542-9546		
AM	HU	Brown, et al., "NMR Solution Structure of a Peptide Nucleic Acid Complexed with RNA", Science, 1994, 265:777-780		
AM	HV	Chen, et al., "Molecular Dynamics and NMR Studies of Single-Stranded PNAs", Tetrahedron Lett., 1994, 35(29):5105-5108		
AM	HW	Demidov, et al., "Sequence Selective Double Strand DNA Cleavage by PNA Targeting Using Nuclease S1", Nucleic Acids Res., 1993, 21(9):2103-2107		
AM	HX Demidov, et al., "Stability of Peptide Nucleic Acids in Human Serum and Cellular Extracts", Biochem Pharmacol, 1994, 48(6):1310-1313			
AM	ну	Dueholm, et al., "An Efficient Synthetic Approach to Boc-aminoacetaldehyde and Its Application in the Synthesis of 2-Boc-aminoethylglycine Methyl Ester", Org. Prep. Proc. Int., 1993, 25:457-461		
DM	HZ	Dueholm, et al., "Peptide Nucleic Acid (PNA) with a Chiral Backbone Based on Alanine", Bioorg. Med. Chem. Lett., 1994, 4(8):1077-1080		
AM	IA	Dueholm, et al., "Synthesis of Peptide Nucleic Acids Monomers Containing the Four Natural Nucleobases: Thymine, Cytosine, Adenine and Guanine, and Their Oligomerization, J. Org. Chem., 1994, 59(19):5767-5773		
EXAMINER	Al	in Marshel DATE CONSIDERED 9-30-96		

			·			
J	Patent Cit	PTO-1449 Modified s and Publications ed by Applicant	Docket No. ISIS-1158	Sheet 17 of Serial No. 08/319,411		
U.S. Depa	eral s artment	heets if necessary)  t of Commerce  demark Office	Applicant Nielsen et al.			
			Filing Date October 6, 1994	Group 1807		
OTHER DOC	UMENTS	(Including Author, Title,	Date, Pertinent Pages,	Etc.)		
AM	IB	Egholm, et al., "Peptide Analogues with an Achria 114:1895-1897				
AM	IC	Egholm, et al., "Recogni Cytosine and Thymine Con Am. Chem. Soc., 1992, 11	tion of Guanine and Ade taining Peptide Nucleic 4:9677-9678	nine in DNA by Acids (PNA)", J.		
· AM	ID	Egholm, et al., "Peptide Guanine Recognize Thymine Sequences", J. Chem. Soc.	Nucleic Acids Containing and Cytosine in Complete Comm., 1993, p. 800-80	ng Adenine or ementary DNA D1		
AM						
AM	IF Frank-Kamenetskii, M., "A Change of Backbone", Nature, 1991,					
AM	Griffith, et al., "Single and Bis Peptide Nucleic Acids as Triplexing Agents: Binding and Stoichiometry, J. Am. Chem. Soc.,					
AM	IH	Hyrup, et al., "Modification of PNA With Extended Backbones Consaminopropylglycine Units, J. Cher	the Binding Affinity of Pepti isting of 2-aminoethyl-B-alan m. Soc. Chem. Comm., 1993, Is	de Nucleic Acids (PNA). line or 3- sue 6;518-519		
Hyrup, et al., "Structure-activity Studies of the Binding of Modified Peptide Nucleic Acids (PNA) to DNA", J. Am. Chem. Soc.,						
Kosynkina, et al., "A Convenient Synthesis of Chiral Peptide Nucleic Acid (PNA) Monomers", Tetrahedron Lett., 1994, 35(29):5173-						
AMINER (	Ledin	Maracher	DATE CONSIDERED 9-30	7-96		

Sheet 18 of 19

Form	PTO-	-144	49	Mod	ified	
 		٠.				

List of Patents and Publications
Cited by Applicant
(Use several sheets if necessary)

U.S. Department of Commerce Patent and Trademark Office

Docket	No.
ISIS-11	L58

Serial No. 08/319,411

Applicant Nielsen et al.

Filing Date October 6, 1994

Mollegaard, et al., "Peptide Nucleic Acid-DNA Strand Displacement Loops as Artifical Transcription Promoters", Proc. Natl. Acad. Sci. USA, 1994, 91(9):3892-3895				October 6, 1994	Not yet assigned
Hybridization of a Thymine-Thymine Heterodimer Containing PNA", Bioorg. Med. Chem. Lett., 1994, 4(8):1081-1085  IL Leijon, et al., "Structural Characterzation of PNA-DNA Duplexes by NMR. Evidence for DNA in a B-like Conformation", Biochemistry, 1994, 33 (33):9820-9825  IM Mollegaard, et al., "Peptide Nucleic Acid-DNA Strand Displacement Loops as Artifical Transcription Promoters", Proc. Natl. Acad. Sci. USA, 1994, 91(9):3892-3895	OTHER DOCUM	ænts	(Including Author, Title,	Date, Pertinent Pages,	Etc.)
Mollegaard, et al., "Peptide Nucleic Acid-DNA Strand Displacement Loops as Artifical Transcription Promoters", Proc. Natl. Acad. Sci. USA, 1994, 91(9):3892-3895	AM	IK	Hypridization of a Thymi	ne-Thymine Heterodimer	ization and Containing PNA",
USA, 1994, 91(9):3892-3895	AM	IL	Leijon, et al., "Structural Characterzation of PNA-DNA Duplexes by NMR. Evidence for DNA in a B-like Conformation", Biochemistry, 1994, 33 (33):9820-9825		
IN Nielsen, et al., "Peptide Nucleic Acids (PNA). Potential Anti-Sen	AM	IM	Loops as Altilical Trans	cription Promoters", Pi	Strand Displacement roc. Natl. Acad. Sci.
[1] 1   1   1   1   1   1   1   1   1   1	AM	IN	Nielsen, et al., "Peptide and Anti-Gene Agents", A	e Nucleic Acids (PNA). nticancer Drug Des., 19	Potential Anti-Sense 993, 8(1):53-56
Nielsen, P.E., "Peptide Nucleic Acids (PNA): Potential Antiviral Agents", Int'l. Antiviral News, 1993, 1:37-39	AM	10	Nielsen, P.E., "Peptide 1 Agents", Int'l. Antiviral	Nucleic Acids (PNA): Po l News, <b>1993</b> , 1:37-39	tential Antiviral
Nielsen, et al., "Peptide Nucleic Acids (PNA). DNA Analogues with Polyamide Backbone", Antisense Research and Applications, 1993, p 363-367.	MA	IP	Polyamide Backbone", Anti	Nucleic Acids (PNA). isense Research and App	DNA Analogues with a lications, 1993, p.
Nielsen, P.E., "Peptide Nucleic Acid (PNA): A Model Structure for the Primordial Genetic Material", Orig. Life Evol. Biosph., 1993, 23 (5-6):323-327.	•	IQ	the Primordial Genetic Ma	Jucleic Acid (PNA): A M sterial", <i>Orig. Life Ev</i>	odel Structure for ol. Biosph., 1993,
Nielsen, et al., "Peptide Nucleic Acid (PNA). A DNA Mimic with a Peptide Backbone", Bioconjugate Chem., 1994, 5(1):3-7.	AM	IR	Nielsen, et al., "Peptide Peptide Backbone", <i>Bioco</i> n	Nucleic Acid (PNA). A sjugate Chem., <b>1994</b> , 5(	DNA Mimic with a 1):3-7.
Nielsen, et al., "Sequence-Specific Transcription Arrest by Peptic Nucleic Acid Bound to the DNA Template Strand", Gene, 1994, 149(1):139-145.	AM	IS	MUCIETO ACIO BOMUO TO TUE	e-Specific Transcription DNA Template Strand",	on Arrest by Peptide Gene, <b>1994</b> ,
EXAMINER Ardin Marshel DATE CONSIDERED 9-30-96	XAMINER /	Irdin	Marshel	DATE CONSIDERED 9	30-96

Docket No. Serial No. ISIS-1158 08/319,411 Form PTO-1449 Modified List of Patents and Publications Applicant Cited by Applicant Nielsen, et al. (Use several sheets if necessary) 1807 Filing Date Group U.S. Department of Commerce October 6, 1994 Patent and Trademark Office Not Yet Assigned OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Orum, et al., "Single Base Pair Mutation Analysis by PNA Directed IT PCR Clamping", Nucleic Acids Res., 1993, 21(23):5332-5336. Peffer, et al., "Strand-Invasion of Duplex DNA by Peptide Nucleic Acid Oligomers", Proc. Natl. Acad. Sci. USA, 1993, 90(22):10648-IU 10652. IV Rose, D.J., "Characterization of Antisense Binding Properties of Peptide Nucleic Acids by Capillary Gel Electrophoresis", Anal. Chem., 1993, 65(24):3545-3549. Wittung, et al., "DNA-like Double Helix Formed by Peptide Nucleic IW Acid", Nature, 1994, 368 (6471):561-563. In Marselol EXAMINER 9-30-96 DATE CONSIDERED